Notice of Allowability	Application No.	Applicant(s)	
	10/608,128	RAVI ET AL.	
	Examiner	Art Unit	
	Christian A. Hannon	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *6/7/2006*.

2. ☒ The allowed claim(s) is/are *1,9,14-16,19 and 67*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date *04/10/06*
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Reasons For Allowance

1. Claims 1, 6-9, 14-16 & 19 are allowed over the cited prior art.

2. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, Van Der Tang et al (US 2002/0063607), herein Tang, teaches a first phase-shift generator (Figure 1, Item "VI CONV1"; Tang) to provide a phase-shift of substantially Pi/2 radians to an oscillation signal (Page 1, [0024]; Tang) between a first oscillation tank (Figure 1, Item OSC2; Tang), which provides substantially no phase-shift and a second oscillation tank (Figure 1, Item OSC1; Page 1, [0025]; Tang) and a phase-inverter to invert the phase of the oscillation signal (Figure 1 '-1'; Tang). However Tang fails to teach a second phase-shift generator to provide a phase-shift of substantially Pi/2 radians to the oscillation signal from the second oscillation tank and wherein the phase-inverter comprises an amplifier to provide a gain such that a total gain across a loop, which comprises the amplifier, the first and second oscillation tanks, and the first and second phase-shift generators, is equal to substantially one.

Claim 6 is allowed as it depends from allowable independent claim 1.

In regards to claim 7, Tang teaches an oscillator comprising a first oscillation tank (Figure 1, Item OSC2; Tang) which produces substantially no phase-shift, a second oscillation tank, which produces substantially no phase-shift, a first phase-shift generator (Figure 1, Item "VI CONV1"; Tang) to shift by substantially Pi/2 radians a phase of a signal (Page 1, [0024]; Tang) from said first oscillation tank (Figure 1, Item OSC2; Tang) and a phase-inverter to invert a phase of a signal from said additional phase-shift generator (Figure 1, '-1'; Tang). However Tang fails to teach a second

phase-shift generator to shift by substantially Pi/2 radians a phase of a signal from said second oscillation tank and wherein the phase-inverter comprises an amplifier to provide a gain such that a total gain across a loop, which comprises the amplifier, the first and second oscillation tanks, and the first and second phase-shift generators, is equal to substantially one.

Claim 8 is allowed as it depends from allowable independent claim 7.

With respect to claim 9, Tang teaches, a quadrature oscillator comprising a phase shift generator (Figure 1, Item "VI CONV1"; Tang) to provide a phase shift of substantially Pi/2 radians to an oscillation signal (Page 1, [0024]; Tang) between a first oscillation tank (Figure 1, Item OSC2; Tang), which provides substantially no phase shift, and a second oscillation tank (Figure 1, Item OSC1; Page 1, [0025]; Tang). However Tang fails to teach a dipole antenna to send and receive wireless signals and a second phase-shift generator to shift by substantially Pi/2 radians a phase of a signal from said second oscillation tank and a phase-inverter to invert a phase of a signal from said additional phase-shift generator, wherein the phase-inverter comprises an amplifier to provide a gain such that a total gain across a loop, which comprises the amplifier, the first and second oscillation tanks, and the first and second phase-shift generators, is equal to substantially one.

Claim 14 is allowed as it depends from allowable independent claim 9.

Regarding claim 15, Tang teaches generating a first phase shift generator (Figure 1, Item "VI CONV1"; Tang) to provide a phase shift of substantially Pi/2 radians to an oscillation signal (Page 1, [0024]; Tang) between a first oscillation tank (Figure 1,

Item OSC2; Tang), which provides substantially no phase shift and a second oscillation tank (Figure 1, Item OSC1; Page 1, [0025]; Tang). However Tang fails to teach generating a second phase-shift of substantially Pi/2 radians to the oscillation signal from the second oscillation tank and inverting the phase of the oscillation signal, wherein inverting the phase comprises providing a gain such that a total gain across a loop, which comprises the first and second oscillation tanks, generating the first phase-shift, and generating the second phase-shift, is equal to substantially one.

Claims 16 & 19 are allowed as they depend from allowable independent claim 15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian A. Hannon whose telephone number is (571) 272-7385. The examiner can normally be reached on Mon. - Fri. 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christian A. Hannon
July 18, 2006

7/20/06
QUOCHIEN B. VUONG
PRIMARY EXAMINER